Poinsettia scab - *Sphaceloma poinsettiae*

During the summer of 2000 poinsettia scab or spot anthracnose caused by *Sphaceloma poinsettiae* was found on greenhouse-grown poinsettia plants that originated in Guatemala. The disease has been seen sporadically on plants grown from imported poinsettia cuttings in subsequent years. This disease results in plants with white to pale buff spots on leaves and bracts that make them unacceptable for sale.

Sphaceloma poinsettiae Jenk. & Ruehle

Spots on living leaves especially along veins and margins and on stems; forming raised, pale buff, circular to elongate spots with purple margins and often a yellow halo, 2-10 mm diam, sometimes causing in-rolling of leaves. Stroma mingled with host tissue, appearing as gray to olive-brown coating of hyaline to pale yellow hyphae forming a loose stroma. Conidiophores arising from stroma, 15-30 x 3-5 um, straight or curved, tapering to apex, usually continuous to 1-septate. Conidia 7-20 x 2.5-5.3 um, elliptical to oblong, continuous or 1-, rarely 2-septate, hyaline to pale yellow.

Hosts: *Euphorbia pulcherrima* Willd. ex Klotsch, rarely also reported on *E. cyathophora* Murray and *E. heterophylla* L. (Euphorbiaceae)

Geographic distribution: Originally described from FL, this fungus is known primarily from the Caribbean and reported from AZ, HI, LA, TX, Mexico Brazil, Fiji and the Republic of South Africa (Farr, et al. n.d.).

Sphaceloma poinsettiae is relatively common on *Euphorbia pulcherrima* in tropical regions. It is also reported on the cultivated plant *E. cyathophora* as well as *E. heterophylla*, a noxious weed commonly known as Mexican fireplant or painted euphorbia. Most cultivars of *E. pucherrima* including all bract colors appear to be susceptible, but some variation in the level of susceptibility has been noted.

Online References:

Benson, D.M. et al. 2002. Poinsettia: The Christmas Flower - APSnet Feature Story, December 2001/January 2002
Whipker, B.E. et al. 2000. Poinsettia: Poinsettia Scab (Spot Anthracnose) - N.C. State University Floriculture Research (PDF)

References:

C.M.I. 1986. *Sphaceloma poinsettiae*. Distrib. Maps Pl. Dis. 393: 1-2.
Daughtrey, M.L., Wick, R.L., and Peterson, J.L. 1995. Compendium of Flowering Potted Plant Diseases. APS Press, St. Paul, Minnesota, 90 pages.
Ruehle, G.D. 1941. Poinsettia scab caused by *Sphaceloma*. Phytopathology 31: 847-948.

Suggested citation: Rossman, A.Y., Palm, M.E., and Daughtry, M.. Systematic Mycology and Microbiology Laboratory, ARS, USDA. 5 May 2005. Invasive Fungi. Poinsettia scab - *Sphaceloma poinsettiae*. Retrieved October 6, 2007, from http://nt.ars-grin.gov/sbmlweb/fungi/index.cfm .

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On Euphorbia pulcherrima "poinsettia" - severely infected, defoliated plant

On Euphorbia pulcherrima "poinsettia" - stem lesions

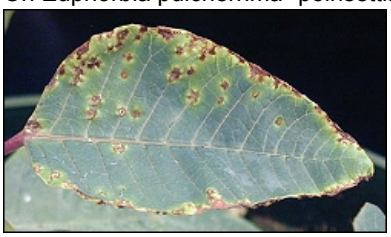
On Euphorbia pulcherrima "poinsettia" - elongate stem lesions and ovoid petiole and leaf lesions

On Euphorbia pulcherrima "poinsettia" - lesions on petiole with greyish center due to production of conidia

On Euphorbia pulcherrima "poinsettia" - small, young lesion on upper leaf surface

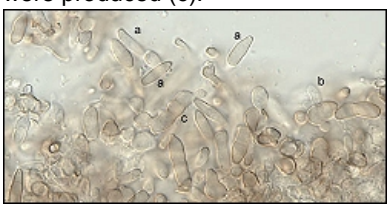
On Euphorbia pulcherrima "poinsettia" - leaf lesions, upper surface

On Euphorbia pulcherrima "poinsettia" - leaf lesions



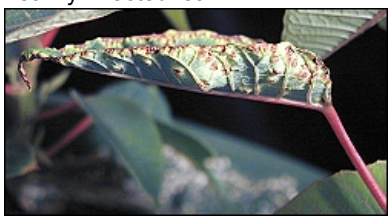
On Euphorbia pulcherrima "poinsettia" - leaf lesions - lower surface

Conidia and conidiogenous cells from surface of stem lesion. Note the mostly non-septate pale brown conidia (a), smaller, hyaline non-septate conidia (b), and a conidiogenous cell with several loci from which conidia were produced (c).

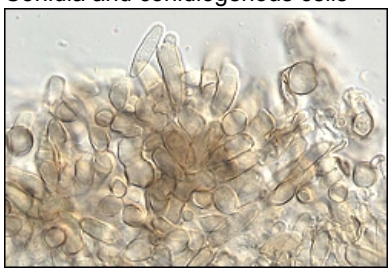


On Euphorbia pulcherrima "poinsettia" - small, young lesion on undersurface of leaf

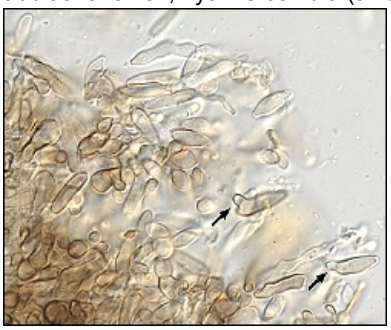
On Euphorbia pulcherrima "poinsettia" - side view of heavily infected leaf



Conidia and conidiogenous cells



Conidia varying from oval and hyaline to elongate and pale brown. Some conidia are germinating or producing additional small, hyaline conidia (arrow).



Cross-section through acervulus. The conidia are produced from conidiogenous cells on the surface of the stroma (S). Note the conidiogenous cell with several lovi from which conidia were produced (arrow).